MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
OPERATING PERMIT TECHNICAL REVIEW DOCUMENT

Permitting and Compliance Division
1520 E. Sixth Avenue
P.O. Box 200901
Helena, Montana 59620-0901

Louisiana Pacific Corporation
Deer Lodge Sawmill
P.O. Box 389
Deer Lodge, MT 59722

The following table summarizes the air quality programs testing, monitoring, and reporting requirements applicable to this facility.

Facility Compliance Requirements	Yes	No	Comments
Source Tests Required	X		Method 9, Method 5
Ambient Monitoring Required		X	
COMS Required		X	
CEMS Required		X	
Schedule of Compliance Required		X	
Annual Compliance Certification and Semiannual Reporting Required	X		As Applicable
Monthly Reporting Required		X	
Quarterly Reporting Required		X	
Applicable Air Quality Programs			
ARM Subchapter 7 Preconstruction Permitting	X		
New Source Performance Standards (NSPS)		X	
National Emission Standards for Hazardous Air Pollutants (NESHAPS)	X		Subpart M
Maximum Achievable Control Technology (MACT)		X	
Major New Source Review (NSR)		X	
Risk Management Plan Required (RMP)		X	
Acid Rain Title IV		X	
State Implementation Plan (SIP)	X		General Montana SIP

TABLE OF CONTENTS

SECTION I. GENERAL INFORMATION

A. Purpose

This document establishes the basis for the decisions made regarding the applicable requirements, monitoring plan, and compliance status of emission units affected by the operating permit proposed for this facility. The document is intended for reference during review of the proposed permit by the EPA and the public. It is also intended to provide background information not included in the operating permit and to document issues that may become important during modifications or renewals of the permit. Conclusions in this document are based on information provided in the original application submitted by Louisiana Pacific Corporation (L-P) on June 12, 1996, additional submittals received on February 02, March 11, May 17, 1999, and February 23, 2001; the application submitted on February 21, 2001, for Operating Permit #OP2634-01; and the application submitted to the Department on January 8, 2003, for the current permit action.

B. Facility Location

L-P's sawmill is located in the SW¼ of Section 4, Township 7 North, Range 9 West, in Powell County, Montana. The physical address of the mill is 1303 Kentucky, Deer Lodge, Montana, 59722. The mill is located approximately 33 miles northwest of the Anaconda-Pintler Wilderness, and rests at an elevation near 4530 feet above sea level.

C. Facility Background Information

Preconstruction Permit

L-P's Deer Lodge lumber manufacturing facility, SIC code 2421, has saw and planing mills for the production of dimensional lumber. Beside the sawmill and planers, the facility has two finger-joint stud manufacturing lines, and drying kilns. The facility's production is sustained by the use of two boilers, a Cleaver-Brooks Natural Gas Boiler, and a Hurst Wood-Waste (hog fuel) Boiler. The Hurst Boiler is responsible for primary steam production, and the Cleaver-Brooks boiler is for supplemental and back-up steam production. The Hurst boiler has a 32-MMBtu/hr capacity, and the Cleaver-Brooks boiler has a 16.7-MMBtu/hr capacity.

Permit **#2195** was issued to Louisiana-Pacific Corp. on December 11, 1985, for the installation and operation of a Hurst Hog fuel boiler.

Permit #2195 was replaced by Permit **#2634-00** on April 3, 1992. Permit #2634-00 was issued for the construction and operation of an Olivine silo-type wood waste burner, and also covered all existing sources of air pollution at the Deer Lodge sawmill, including cyclones on pneumatic transfer systems, two natural gas boilers, kilns, and other fugitive emissions from mill operations. The Olivine burner replaced a previously existing conical waste burner.

Permit **#2634-01** was issued to L-P to remove the source testing requirements for PM-10, CO, and VOC's on the Hurst hog fuel boiler. Also removed were the monitoring and reporting requirements on the York-Shipley (Y-S) boiler, which was removed from service.

Permit **#2634-02** allowed the replacement of a multiclone on the Hurst boiler. Permit #2634-03 removed the Olivine wood waste burner and all of its associated permit conditions. Permit #2634-03 was also modified to recognize several de minimis changes that occurred at the Deer Lodge sawmill that have affected the emission inventory.

The air quality in the area surrounding the Deer Lodge sawmill is classified as attainment/unclassifiable and the Montana State Implementation Plan does not impose any operating restrictions on the facility.

HB 311, the Montana Private Property Assessment Act, requires analysis of every proposed state agency administrative rule, policy, permit condition or permit denial, pertaining to an environmental matter, to determine whether the state action constitutes a taking or damaging of private real property that requires compensation under the Montana or U.S. Constitution. As part of issuing an operating permit, the Department is required to complete a Taking and Damaging Checklist. As required by 2-10-101 through 105, MCA, the Department has conducted a private property taking and damaging assessment and has determined there are no taking or damaging implications. The checklist was completed on December 15, 1999.

On December 5, 2000, the Department received a complete permit application for the alteration of Permit **#2634-03**. The permit action involved the following changes to the facility:

- Installation of two additional lumber dry kilns
- Upgrading of log deck and log processing equipment
- Upgrading the sawmill re-saw
- Upgrading the planer mill with optimizer trimmer, sorter, and stacker including replacement of the existing shavings cyclone with a newer and more efficient unit
- Installation of a double length infeed

The above projects were expected to proceed over the following 3-years as available funding allowed. The permitted allowable production at the plant was increased from 140-million board feet (MMbf) per year to 200 MMbf per year. To ensure that potential emissions from the facility remained below the New Source Review (NSR) Prevention of Significant Deterioration (PSD) program permitting threshold, L-P proposed a maximum production limit of 200 MMbf/year. Finally, the Department updated the equipment list contained in Section I.A of the permit analysis to accurately portray permitted emission sources at the facility. Permit **#2634-04** replaced Permit #2634-03.

On February 27, 2001, the Department received a request from L-P for an administrative change to Permit #2634-04. In the application submitted for Permit #2634-04, L-P requested a production limit on the planer and sawmill of 200 MMbf per year. The language in Section II.A.5 of Permit #2634-04, as issued, stated "Mill production shall be limited to a maximum of 200 MMbf during any rolling 12-month time period." L-P contended that the term "mill" production could be interpreted to include production from the fingerjoint operation as well as the sawmill. Emissions from the fingerjoint operation are estimated based on the airflow and operating hours of the pneumatic collection system and cyclone and are not dependent on fingerjoint production. Therefore, the production limit stated in the permit was clarified to include only sawmill production.

To ensure that there was no confusion, the Department modified the language in Section III.A.5 to read "*Sawmill* production shall be limited to a maximum of 200 MMbf during any rolling 12-month time period." In addition, the language in Section II.C.3 was changed to state "L-P shall document, by month, the total *sawmill* production in MMbf."

Further, L-P requested that the Department change the reporting requirement contained in Section II.C.1. Section II.C.1, as issued in Permit #2634-04, required that L-P submit information including steam production for the Hurst boiler and hours of operation and airflow of the chip surge bin cyclone that was removed from the facility. L-P felt that this information was not necessary for the Department to make a compliance determination or for preparation of the annual emission inventory.

The Department concurred and modified the language contained in Section II.C.1 to indicate generic language similar to that used in the L-P Belgrade mill Permit #2809-03 and other similar sources recently permitted by the Department. Further, because the chip surge bin cyclone was removed from the facility, any requirements pertaining to that cyclone were removed. Permit **#2634-05** replaced Permit #2634-04.

On June 28, 2001, the Department received a de minimis determination request, from L-P, for the installation and operation of a ventilation system in the sawmill building. The system is used for worker safety and industrial hygiene purposes and consists of a blower, various pick-up points, and a 10 feet long cone cyclone. Nominal airflow for the system is 22,000 actual cubic feet per minute.

Indoor particulate emissions from various processes at the plant, as described in the de minimis determination request letter, have been previously permitted and the proposed system and do not increase emissions from any source. Therefore, because the project did not increase the facility's potential to emit, the project was accomplished in accordance with the Administrative Rules of Montana (ARM) 17.8.705(1)(r). Permit **#2634-06** replaced Permit #2634-05.

Title V Operating Permit

On March 17, 2001, L-P was issued final and effective Operating Permit #OP2634-00 for the operation of a lumber sawmill and associated equipment.

On February 23, 2001, L-P submitted a permit application for the modification of Title V Operating Permit #OP2634-00. The modification included applicable changes made to L-P's preconstruction permit since issuance of the facility's Operating Permit #OP2634-00.

Changes to L-P's preconstruction permit increased allowable sawmill production from 140 million board feet per year (MMbf/year) to 200 MMbf/year. The sawmill production limit of 200 MMbf/year was incorporated into the operating permit requirements for Log Sawing (EU08). In addition, the increase in production and material throughput resulted in the following emission units, previously designated as insignificant emitting units (IEU), becoming significant emitting units (EU): Debarking fugitives (EU10), Shavings Truck Loading (EU11), Sawdust Truck Loading (EU12), Bark Loading (EU13), and the Sawdust Bin Target Box (EU14).

Further, because the Sawmill Surge Bin Cyclone (3140 cfm) (IEU17) is no longer in use at the facility it was removed from the insignificant emitting unit list in the operating permit. In addition, because emissions from the Sawdust Truck Bin Vent (IEU18) and the Shavings Truck Bin Vent (IEU21) are accounted for through EU14 and EU06, respectively, these IEU's were removed from the insignificant emitting unit list in the operating permit.

In addition, the particulate matter testing schedule for the Hurst Hog Fuel Fired Boiler in Operating Permit #OP2634-00 was changed from testing on an every-4-year basis to testing on an every-5-year basis to be consistent with the preconstruction permit and Department testing schedule guidance.

Finally, on March 18, 2002, during the proposed permit stage of the Title V permitting process for significant modifications, L-P submitted a letter indicating a required change in the responsible official at the Deer Lodge Mill. The Department considers a change in the responsible official to be an administrative permit amendment not requiring a re-draft of the permit. Therefore, prior to issuance of the Department decision on Operating Permit #OP2634-01, as requested, the Department changed the responsible official from Bruce Mallory to Robert W. Nix, the current plant manager and facility contact. Operating Permit **#OP2634-01** replaced Operating Permit #OP2634-00.

D. Current Permit Action

On January 8, 2003, the Department received an application for proposed changes to Title V Operating Permit #OP2634-01. Specifically, L-P requested an increase in allowable particulate matter (PM) emissions from the Hurst hog-fuel-fired boiler from the currently permitted rate of 0.15 pounds per million British thermal unit (lb/MMBtu) heat input to a proposed emission rate limit of 0.30 lb/MMBtu.

After review of other similar source emission limits included in the U.S. Environmental Protection Agency's (EPA) RACT/BACT/LAER Clearinghouse, the Department determined that the proposed PM emission limit of 0.30 lb/MMBtu constitutes Best Available Control Technology (BACT) for the Hurst hog fuel-fired boiler and that the emission limit of 0.15 lb/MMBtu was inappropriately applied as BACT at the time of original permit issuance, because L-P proposed the limit as BACT.

In addition, on December 6, 2002, the Department received a request for a permit determination for a proposed insignificant emitting unit at the facility. Specifically, L-P proposed the installation and operation of a new rip saw to be housed in the existing finger-joint building. Because potential uncontrolled PM (and all other regulated pollutants) emissions from the proposed rip saw are less than the insignificant emitting unit threshold of 5 tons per year, the saw, and associated equipment, was added to the insignificant emitting unit list. The rip-saw, and associated equipment, has been added to the list of insignificant emitting units under IEU20.

Also, past correspondence from L-P indicated that an insignificant emitting unit had been inadvertently left out of the permit. Specifically the Bark Hog, which feeds the Hurst Boiler (EU01), has been added to the list of insignificant emitting units under IEU19. Operating Permit **#OP2634-02** replaces Operating Permit #OP2634-01.

E. Compliance Designation

The L-P Deer Lodge facility was last inspected on 01/28/03, and found to be in compliance with the terms of their preconstruction permit.

SECTION II. SUMMARY OF EMISSION UNITS

A. Facility Process Description

The facility receives raw logs that are sorted and stored prior to being debarked and cut to length. The logs are then processed through various saws into the proper dimension. The rough lumber is then dried in the kilns, followed by planing to produce the finished product. Culled lumber (and short lumber) is sent to the finger-jointer lines for the manufacture of finger-joint studs.

Steam production for the facility is accomplished by the Hurst hog fuel boiler, rated at 32-MMBtu/hr capacity. L-P also uses a Cleaver-Brooks natural gas boiler, rated at 16.7-MMBtu/hr capacity, for steam backup and for peak use periods.

By products and waste from this mill include:

- Bark, which is separated into hog fuel (consumed on site) and beauty bark (sold off site)
- Sawdust, which is collected via cyclone and loaded onto trucks for outside sale
- Shavings from the planers and jointers are collected via cyclones and sold for off-site use
- Chips, which are collected and sold off site

B. Emission Units and Pollution Control Device Identification

The emission units regulated by this permit are the following (ARM 17.8.1211)

Emission Unit ID	Emission Unit Description	Pollution Control Device or Practice
EU01	Hurst Hog Fuel (Wood Waste) Boiler	Multiclone
EU02	Cleaver-Brooks Natural Gas Boiler	None
EU03	Dry Kiln (3ea)	None
EU04	Sawdust-Fingerjoint Cyclone (28,000 CFM)	Cyclone
EU05	Hog Blower Cyclone (13,200 CFM)	Cyclone
EU06	Shavings-Planer Cyclone (8,760 CFM)	Cyclone
EU07	Chip Bin Target Box	None
EU08	Log Sawing	None
EU09	Vehicles, Trucks, and Equipment Fugitives	Water or Chemical Dust Suppressants
EU10	De-Barking Fugitives	None
EU11	Shavings Truck Loading Fugitives	None
EU12	Sawdust Truck Loading Fugitives	None
EU13	Bark Loading Fugitives	None
EU14	Sawdust Bin Target Box	None

C. Categorically Insignificant Sources/Activities

The following table of insignificant sources and/or activities was provided by the permittee. Because there are no requirements to update such a list, the emission units and/or activities may change from those specified in the table.

Emission Unit ID	Description
IEU01	Antifreeze Storage and Handling
IEU02	Ash Handling
IEU03	Beauty Bark Handling & Loading
IEU04	Chipping Fugitives
IEU05	Diesel Storage and Handling
IEU06	Fingerjointing Adhesive Curing Emissions
IEU07	Gasoline Storage and Handling
IEU08	Honing Oil Storage and Handling (<260 gallons)
IEU09	Kerosene Storage and Handling
IEU10	Knife Sharpening Operation (Babbit Smelting)
IEU11	Lumber Stenciling
IEU12	Motor Oil Storage and Handling (<260 gallons)
IEU13	Rail Car Loading w/ Chips
IEU14	Repair and Maintenance Activities
IEU15	Chip Screening
IEU16	Space Heaters
IEU17	Transmission Fluid Storage and Handling
IEU18	Used Oil Storage and Handling
IEU19	Bark Hog
IEU20	Rip-Saw and Associated Equipment

SECTION III. PERMIT CONDITIONS

A. Emission Limits and Standards

Hurst Wood-Waste (Hog Fuel) Boiler - EU01

The current Montana Air Quality Permit increased the allowable particulate matter emission limit for the boiler from 0.15 lb/MMBtu to 0.30 lb/MMBtu. The previous limit was proposed by L-P but was later determined to be inappropriate for the source. The Department reviewed similar source Best Available Control Technology (BACT) determinations, for similar sources industry wide, to make this determination. In addition, the boiler emissions must also not exceed 20% opacity.

There are no other emission limits or standards identified in this permit that were not previously applicable to the facility. All emission limits are listed in the operating permit along with the applicable rule citation for each limit.

B. Monitoring Requirements

ARM 17.8.1212(1) requires that all monitoring and analysis procedures or test methods required under applicable requirements are contained in operating permits. In addition, when the applicable requirement does not require periodic testing or monitoring, periodic monitoring must be prescribed that is sufficient to yield reliable data from the relevant time period that is representative of the source's compliance with the permit.

The requirements for testing, monitoring, recordkeeping, reporting and compliance certification, sufficient to assure compliance, does not require the permit to impose the same level of rigor for all emission units. Furthermore, it does not require extensive testing or monitoring to assure compliance with the applicable requirements for emission units that do not have significant potential to violate emission limitations or other requirements under normal operating conditions. When compliance with the underlying applicable requirement for a insignificant emission unit is not threatened by lack of regular monitoring and when periodic testing or monitoring is not otherwise required by the applicable requirement, the status quo **(i.e., no monitoring)** will meet the requirements of ARM 17.8.1212(1). Therefore, the permit does not include monitoring for insignificant emission units.

The permit includes periodic monitoring or recordkeeping for each applicable requirement. The information obtained from the monitoring and recordkeeping will be used by the permittee to periodically certify compliance with the emission limits and standards. However, the Department may request additional testing to determine compliance with the emission limits and standards.

C. Test Methods and Procedures

The operating permit may not require testing for all sources if routine monitoring is used to determine compliance, but the Department has the authority to require testing if deemed necessary to determine compliance with an emission limit or standard. In addition, the permittee may elect to voluntarily conduct compliance testing to confirm its compliance status.

D. Recordkeeping Requirements

The permittee is required to keep all records listed in the operating permit as a permanent business record for at least 5 years following the date of the generation of the record.

E. Reporting Requirements

Reporting requirements are included in the permit for each emission unit and Section V of the operating permit "General Conditions" explains the reporting requirements. However, the permittee is required to submit semi-annual and annual monitoring reports to the Department and to annually certify compliance with the applicable requirements contained in the permit. The reports must include a list of all emission limit and monitoring deviations, the reason for any deviation, and the corrective action taken as a result of any deviation.

F. Public Notice

In accordance with ARM 17.8.1232, a public notice was published in the Silver State Post newspaper on or before May 28, 2003. The Department provided a 30-day public comment period on the draft operating permit from May 28, 2003, through June 27, 2003. ARM 17.8.1232 requires the Department to keep a record of both comments and issues raised during the public participation process.

G. Draft Permit Comments

Summary of Permitee Comments

Permit Reference	L-P Comment	Department Response
Draft OP2634-02	No Comments	NA

Summary of EPA Comments

Permit Reference	EPA Comment	Department Response
Draft OP2634-02	No Comments	NA

Summary of Public Comments

Permit Reference	Public Comment	Department Response
Draft OP2634-02	No Comments	NA

SECTION IV. FUTURE PERMIT CONSIDERATIONS

A. MACT Standards

As of the date of permit issuance, the Department is not aware of any applicable MACT standards.

B. NESHAP Standards

As of the date of issuance of this permit, the only NESHAP standard that this facility is subject to is 40 CFR 61, Subpart M, "National Emission Standards for Hazardous Air Pollutants for Demolition and Renovation;" this standard is applicable to any asbestos project. The Department is unaware of any future requirement that may be promulgated during the permit term for which this facility must comply.

C. NSPS Standards

The Department is unaware of any applicable NSPS provisions that would affect this facility. The Cleaver-Brooks Natural Gas Boiler has been in operation since well before the Subpart Dc applicability date of June 9, 1989. Similarly, the Hurst Hog Fuel Boiler was constructed prior to the applicability date for Subpart Dc.

D. Risk Management Plan

As of the date of permit issuance, this facility does not exceed the minimum threshold quantities for any regulated substance listed in 40 CFR 68.115 for any facility process. Consequently, this facility is not required to submit a Risk Management Plan.

If a facility has more than a threshold quantity of a regulated substance in a process, the facility must comply with 40 CFR 68 requirements no later than June 21, 1999; 3 years after the date on which a regulated substance is first listed under 40 CFR 68.130; or the date on which a regulated substance is first present in more than a threshold quantity in a process, whichever is later.